3625 Del Amo Boulevard, Suite 180 Torrance, California 90503-1643 (310) 370-8370 (310) 370-7026 FAX www.hygienetech.com

January 10, 2014

California State Board of Equalization 450 N Street Sacramento, California 94279

Document No. 21311001.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys

November 2013 Random Sampling

Dear Mr. Gau:

On November 7, 15, and 22, 2013, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving 18 randomly selected areas located within the California State Board of Equalization (BOE) building. The findings of the surveys, along with the analytical data, conclusions, and recommendations when applicable, appear below.

On the survey dates, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump  $Plus^{\mathsf{T}}$  equipped with Air-O-Cell cassettes. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 21311001-1, the airborne spore count data recorded showed fungal spore types outdoors such as *Alternaria*, ascospores, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, other brown, *Nigrospora*, rusts, and/or smuts. In the indoor areas tested, the data showed that airborne fungal spores were either not detected at or above the laboratory detection limit indicated or were detected at low airborne concentrations. The fungal spore types found indoor included ascospores, basidiospores, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Oidium*, rusts and/or smuts. The distribution of fungal spore types detected in the surveyed areas was generally consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor data recorded. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

Be advised that the data provided in this report only represent limited fungal growth and exposure potentials that existed at the time these surveys were performed and at the precise sample locations

Mr. David Gau January 10, 2014 Document No. 21311001.1 – November 2013 Random Sampling Page 2



indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

Kenny K. Hsi, CIH

Technical Director

APPENDIX A

CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21311001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
NOVEMBER 7, 15, AND 22, 2013

Page 1

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21311001-1 TM01OUT	21311001-1 TM02	21311001-1 TM03	21311001-1 TM04						
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 20 feet north of building; approximately five feet above ground/Normal outdoor activities	21st Floor; Column K20 area; adjacent to Cubicle 78; approximately five feet above floor/Normal office activities	20 <sup>th</sup> Floor; Column N18 area; fax/copy station area; approximately five feet above floor/Normal office activities	11 <sup>th</sup> Floor; Low Rise Elevator Lobby; about center; approximately five feet above floor/Normal office activities						
DATE	11/07/13	11/07/13	11/07/13	11/07/13						
START/STOP	10:30:00/10:35:00	10:45:00/10:50:00	10:55:00/11:00:00	11:05:00/11:10:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria	110									
Ascospores	110			53						
Basidiospores	1,000	53	53	53						
Bipolaris/Drechslera group										
Botrytis										
Chaetomium	80									
Cladosporium	3,400		53							
Curvularia										
Epicoccum										
Fusarium										
Nigrospora	27									
Oidium										
Other brown	40									
Other colorless										
Penicillium/Aspergillus types	1,500									
Pithomyces										
Rusts	40	13								
Smuts (Periconia, Myxomycetes)	490		13	13						
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Hyphal fragments	120	<13	13	<13						
Background debris*	3+	1+	2+	2+						
TOTAL**	6,800	<67	120	120						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21311001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
NOVEMBER 7, 15, AND 22, 2013

Page 2

Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

Results reported in spores per cubic meter of air (spores/M³)									
SAMPLE NUMBER	21311001-1 TM05	21311001-1 TM06	21311001-1 TM07	21311001-2 TM08OUT					
SAMPLING LOCATION/ACTIVITIES	8 <sup>th</sup> Floor; Conference Room 805; about center; approximately five feet above floor/Normal office activities	7 <sup>th</sup> Floor; Column N18 area; adjacent to Cubicle 162/164 approximately five feet above floor/Normal office activities	3 <sup>rd</sup> Floor; Room 317; reception area; about center; approximately five feet above floor/Normal office activities	Outdoors; about 25 feet north of Cafeteria; approximately five feet above ground/Normal outdoor activities					
DATE	11/07/13	11/07/13	11/07/13	11/15/13					
START/STOP	11:15:00/11:20:00	11:23:00/11:28:00	11:32:00/11:37:00	13:17:00/13:22:00					
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes					
Alternaria				53					
Ascospores	53			13					
Basidiospores	110	53		160					
Bipolaris/Drechslera group									
Botrytis									
Chaetomium				13					
Cladosporium	53	210	110	830					
Curvularia									
Epicoccum									
Fusarium									
Nigrospora				13					
Oidium									
Other brown									
Penicillium/Aspergillus types				230					
Pithomyces									
Rusts				13					
Smuts (Periconia, Myxomycetes)				110					
Stachybotrys									
Stemphylium									
Torula									
Trichocladium									
Ulocladium									
Zygomycetes									
Hyphal fragments	13	13	13	93					
Background debris*	2+	2+	2+	2+					
TOTAL**	210	270	110	1,400					

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21311001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
NOVEMBER 7, 15, AND 22, 2013

Page 3

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21311001-2 TM09	21311001-2 TM10	21311001-2 TM11	21311001-2 TM12						
SAMPLING LOCATION/ACTIVITIES	22 <sup>nd</sup> Floor; Break Room 2202; about center; approximately five feet above floor/Normal office activities	19 <sup>th</sup> Floor; Column N20 area; cubicle area; approximately five feet above floor/Normal office activities	17 <sup>th</sup> Floor; Column N23 area; about 10 feet east of Column N23; approximately five feet above floor/Normal office activities	14 <sup>th</sup> Floor; Elevator Lobby; southern end; approximately five feet above floor/Normal office activities						
DATE	11/15/13	11/15/13	11/15/13	11/15/13						
START/STOP	13:30:00/13:35:00	13:39:00/13:44:00	13:48:00/13:53:00	13:57:00/14:02:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria										
Arthrinium										
Ascospores										
Basidiospores										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium	53	53		53						
Curvularia										
Epicoccum										
Fusarium										
Nigrospora										
Oidium			13							
Other brown										
Penicillium/Aspergillus types				53						
Pithomyces										
Rusts			13							
Smuts (Periconia, Myxomycetes)	13									
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Hyphal fragments	<13	13	<13	<13						
Background debris*	2+	2+	2+	2+						
TOTAL**	67	53	27	110						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

**APPENDIX A** 

**CLIENT: California State Board of Equalization** 450 N Street Sacramento, California 94279

**TABLE 21311001-1** AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA **NOVEMBER 7, 15, AND 22, 2013** 

Page 4

Results reported in spores per cubic meter of air (spores/M <sup>3</sup> )										
SAMPLE NUMBER	21311001-2 TM13	21311001-1 TM14	21311001-1 TM15OUT	21311001-1 TM16						
SAMPLING LOCATION/ACTIVITIES	6 <sup>th</sup> Floor; Column N17 area; about 10 feet west of Column N17; approximately five feet above floor/Normal office activities	4 <sup>th</sup> Floor; northwestern corridor; adjacent to Room 402; approximately five feet above floor/Normal office activities	Outdoors; about 25 feet west of building; approximately five feet above ground/Normal outdoor activities	23 <sup>rd</sup> Floor; Column K21 area; about center; approximately five feet above floor/Normal office activities						
DATE	11/15/13	11/15/13	11/22/13	11/22/13						
START/STOP	14:08:00/14:13:00	14:16:00/14:21:00	11:05:00/11:10:00	11:13:00/11:18:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria			40							
Ascospores										
Basidiospores			270							
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium	53	110	8.800	160						
Curvularia										
Epicoccum										
Myrothecium										
Nigrospora										
Oidium										
Other brown										
Penicillium/Aspergillus types			53							
Pithomyces										
Rusts										
Smuts (Periconia, Myxomycetes)	13	13	40							
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Zygomycetes										
Hyphal fragments	<13	<13	130	<13						
Background debris*	2+	2+	2+	1+						
TOTAL**	67	120	9,200	160						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



**CLIENT: California State Board of Equalization** 450 N Street Sacramento, California 94279

TABLE 21311001-1 AIRBORNE TOTAL FUNGI RESULTS **450 N STREET** SACRAMENTO, CALIFORNIA **NOVEMBER 7, 15, AND 22, 2013** 

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/B #3\

Results reported in spores per cubic meter of air (spores/M <sup>3</sup> )										
SAMPLE NUMBER	21311001-1 TM17	21311001-1 TM18	21311001-1 TM19	21311001-1 TM20						
SAMPLING LOCATION/ACTIVITIES	18 <sup>th</sup> Floor; Column K18 area; about center; approximately five feet above floor/Normal office activities	16 <sup>th</sup> Floor; adjacent to Cubicle 26; approximately five feet above floor/Normal office activities	15 <sup>th</sup> Floor; Elevator Lobby; approximately five feet above floor/Normal office activities	10 <sup>th</sup> Floor; Column N20 area; about center; approximately five feet above floor/Normal office activities						
DATE	11/22/13	11/22/13	11/22/13	11/22/13						
START/STOP	11:21:00/11:26:00	11:30:00/11:35:00	11:37:00/11:42:00	11:44:00/11:49:00						
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes						
Alternaria										
Ascospores										
Basidiospores										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium			110							
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Oidium										
Other brown										
Penicillium/Aspergillus types										
Pithomyces										
Rusts				13						
Smuts (Periconia, Myxomycetes)										
Spegazzinia										
Stachybotrys										
Torula										
Ulocladium										
Zygomycetes										
Hyphal fragments	<13	<13	<13	<13						
Background debris*	1+	1+	1+	1+						
TOTAL**	<13	<13	110	13						

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



CLIENT: California State Board of Equalization 450 N Street Sacramento, California 94279 TABLE 21311001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
NOVEMBER 7, 15, AND 22, 2013

Page 6

Results reported in spores per cubic meter of air (spores/M³)

Results reported in spores per cubic meter of air (spores/M³)										
SAMPLE NUMBER	21311001-1 TM21									
SAMPLING LOCATION/ACTIVITIES	9 <sup>th</sup> Floor; adjacent to Column M22 area; approximately five feet above floor/Normal office activities	This Column intentionally left blank	This Column intentionally left blank	This Column intentionally left blank						
DATE	11/22/13									
START/STOP	11:51:00/11:56:00									
SAMPLE TIME	5 minutes									
Alternaria										
Ascospores										
Basidiospores										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium										
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Oidium										
Other brown										
Penicillium/Aspergillus types										
Pithomyces										
Rusts										
Smuts (Periconia, Myxomycetes)										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Hyphal fragments	<13									
Background debris*	1+									
TOTAL**	<13									

<sup>\*</sup>Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

<sup>\*\*</sup>Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



Report for:

Mr. Kenny Hsi, Mr. Larry Sandhu Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21311001

EMĹ ID: 1142924

Approved by:

Dates of Analysis:

Spore trap analysis: 11-25-2013

Technical Manager Melissa Tracey

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Date of Sampling: 11-22-2013

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Date of Receipt: 11-22-2013 Re: 21311001 Date of Report: 11-25-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21311001- TM15Out		213110	001-TM16	21311001-TM12		21311001-TM1	
Comments (see below)	N	lone	N	lone	N	Vone	N	Vone
Lab ID-Version‡:	5163372-1		516	3373-1	5163374-1		5163375-1	
Analysis Date:	11/2	5/2013	11/2	5/2013	11/2	25/2013	11/25/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	3	40				•		•
Ascospores								
Basidiospores	5	270						
Botrytis								
Chaetomium								
Cladosporium	165	8,800	3	160				
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†	1	53						
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	3	40						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		1+		1+		1+	
Hyphal fragments/m3	130		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		13	
Skin cells (1-4+)	< 1+		< 1+		1+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		9,200		160		< 13		< 13

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC EMLab ID: 1142924, Page 2 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc. C/O: Mr. Kenny Hsi, Mr. Larry Sandhu

Re: 21311001

Date of Receipt: 11-22-2013 Date of Report: 11-25-2013

Date of Sampling: 11-22-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	213110	001-TM19	213110	001-TM20	21311001-TM21		
Comments (see below)	ľ	None	None		1	None	
Lab ID-Version‡:	516	3376-1	5163377-1		5163378-1		
Analysis Date:	11/2	25/2013	11/2	25/2013	11/2	25/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria		_		_			
Ascospores							
Basidiospores							
Bipolaris/Drechslera group							
Botrytis							
Chaetomium							
Cladosporium	2	110					
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora							
Other colorless							
Penicillium/Aspergillus types†							
Pithomyces							
Rusts			1	13			
Smuts, Periconia, Myxomycetes							
Stachybotrys							
Stemphylium							
Torula							
Ulocladium							
Zygomycetes							
Background debris (1-4+)††	1+		1+		1+		
Hyphal fragments/m3	< 13		< 13		< 13		
Pollen/m3	< 13		< 13		< 13		
Skin cells (1-4+)	< 1+		< 1+		< 1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		110		13		< 13	

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

EMLab ID: 1142924, Page 3 of 3

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.



Report for:

Mr. Chun Lau Hygiene Technologies International, Inc. 3625 Del Amo Boulevard, Suite 180 Torrance, CA 90503-8370

Regarding: Project: 21311001-1

EMĹ ID: 1136889

Approved by:

Dates of Analysis:

Spore trap analysis: 11-07-2013

Technical Manager Melissa Tracey

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #179768

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		21311001-1-TM01 2 OUT		)1-1-TM02	2131100	)1-1-TM03	21311001-1-TM04	
Comments (see below)		A	N	Vone	N	Vone	N	Vone
Lab ID-Version‡:	513	5628-1	513	5629-1	513	5630-1	5135631-1	
Analysis Date:	11/0	7/2013	11/0	07/2013	11/0	7/2013	11/07/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	8	110		_		_		
Ascospores	2	110					1	53
Basidiospores	19	1,000	1	53	1	53	1	53
Chaetomium	6	80						
Cladosporium	63	3,400			1	53		
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora	2	27						
Other brown	3	40						
Other colorless								
Penicillium/Aspergillus types†	56	1,500						
Pithomyces								
Rusts	3	40	1	13				
Smuts, Periconia, Myxomycetes	37	490			1	13	1	13
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	3+		1+		2+		2+	
Hyphal fragments/m3	120		< 13		13		< 13	
Pollen/m3	93		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		6,800		67		120		120

**Comments:** A) 36 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

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<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	2131100	01-1-TM05	2131100	)1-1-TM06	21311001-1-TM07	
Comments (see below)	None		None		None	
Lab ID-Version‡:	513	5632-1	5135633-1		5135634-1	
Analysis Date:	11/0	07/2013	11/0	07/2013	11/07/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria		_		-		_
Ascospores	1	53				
Basidiospores	2	110	1	53		
Chaetomium						
Cladosporium	1	53	4	210	2	110
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	13		13		13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		210		270		110

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

EMLab P&K, LLC

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<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

### MoldRANGE<sup>TM</sup>: Extended Outdoor Comparison Outdoor Location: 21311001-1-TM01 OUT

Fungi Identified	Outdoor		Typica	l Outd	loor Da	ıta for	:	,	Typica	l Outd	loor Da	ata for	:
	data	Nove	ember i	n Calif	ornia†	(n‡=14	4417)	The er	ntire yea	ır in Ca	lifornia	(n‡=1	88141)
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	110	13	13	27	67	120	58	13	13	27	67	110	54
Bipolaris/Drechslera group	-	8	13	13	27	53	15	7	13	13	27	40	12
Chaetomium	80	11	13	13	29	53	18	8	13	13	27	47	19
Cladosporium	3,400	190	370	1,100	3,200	5,900	98	110	210	630	1,700	2,800	97
Curvularia	-	7	13	13	27	53	8	7	13	13	27	53	6
Nigrospora	27	8	13	13	40	67	14	7	13	13	27	53	8
Other brown	40	13	13	13	40	53	34	13	13	13	40	53	34
Penicillium/Aspergillus types	1,500	53	110	320	910	1,500	89	53	100	210	590	1,000	85
Stachybotrys	-	13	13	13	40	67	5	7	13	13	33	67	4
Torula	-	10	13	13	40	67	9	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	110	22	53	130	520	1,100	72	25	53	110	360	690	71
Basidiospores	1,000	53	110	430	2,600	6,200	96	53	80	270	1,000	2,400	93
Rusts	40	13	13	13	53	93	28	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	490	13	13	40	110	190	71	13	13	40	110	200	68
§ TOTAL SPORES/m3	6,800												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

 $\ddagger$ n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21311001-1-TM01 OUT:

Species detected		Outdoo	r sample sj	pores/m3	Typical	outdo	or ranges	Freq.
	<100	1K	10K	>100K	(Nor	th An	nerica)	%
Alternaria				110	7 -	33	- 590	45
Ascospores				110	13 -	210	- 5,700	76
Basidiospores				1,000	13 -	450	- 24,000	92
Chaetomium				80	] 7 -	13	- 160	9
Cladosporium				3,400	27 -	480	- 11,000	90
Nigrospora				27	] 7 -	13	- 240	16
Other brown				40	] 7 -	13	- 120	24
Penicillium/Aspergillus types				1,500	13 -	170	- 2,700	68
Rusts				40	] 7 -	20	- 360	20
Smuts, Periconia, Myxomycetes				490	] 7 -	53	- 930	64
Total				6,800				

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

#### **Indoor Samples**

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ement ratio** loor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: < 1%	dF: 5 Result: 1.4857 Critical value: 11.0705 Inside Similar: Yes	R	Result: 0.3333	dF: 10 Result: 0.2636 Critical value: 0.5515 Outside Similar: No	Score: 105 Result: Low			
Species 1	Detected			Spores/m3				
		<100	1K	10K	>100K			
	Basidiospores				53			
	Rusts				13			
	Total				67			

Client: Hygiene Technologies International, Inc. C/O: Mr. Chun Lau

C/O: Mr. Chun L Re: 21311001-1 Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21311001-1-TM03

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio* (indoor/outdoor)		MoldSCORE**** (indoor/outdoor)						
Result: 1%	dF: 5 Result: 1.4857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4615	dF: 10 Result: 0.7182 Critical value: 0.5515 Outside Similar: Yes	Score: 104 Result: Low						
Species 1	Detected	Spores/m3								
		<100	K 10K	>100K						
	Basidiospores			53						
	Cladosporium			53						
Smuts, Periconia, Myxomycetes				13						
	Total			120						

Location: 21311001-1-TM04

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		eement ratio** loor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 1%	dF: 5 Result: 1.4857 Critical value: 11.0705 Inside Similar: Yes	F	Result: 0.4615	dF: 10 Result: 0.4182 Critical value: 0.5515 Outside Similar: No	Score: 104 Result: Low			
Species 1	Detected			Spores/m3				
		<100	1K	10K	>100K			
	Ascospores				53			
	Basidiospores				53			
Smuts, F	Periconia, Myxomycetes				13			
	Total				120			

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)			corr	man rank elation*** or/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 3%	dF: 5 Result: 1.4857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4615			Res Critical	dF: 10 ult: 0.6061 value: 0.5515 e Similar: Yes	Score: 108 Result: Low			
Species	Detected	<100		1K	Sp	ores/m3	>100K			
	Ascospores Basidiospores						>100K	53 110		
	Cladosporium <b>Total</b>							53 210		

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

**Location:** 21311001-1-TM06

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 3%	dF: 5 Result: 1.4857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3333	dF: 10 Result: 0.6970 Critical value: 0.5515 Outside Similar: Yes	Score: 105 Result: Low			
Species 1	Detected		Spores/m3				
		<100 1K	10K	>100K			
	Basidiospores			53			
	Cladosporium			210			
	Total			270			

**Location:** 21311001-1-TM07

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ent ratio** r/outdoor)	Spearman rank correlation*** (indoor/outdoor	(indoor/outdoor)
Result: 1%	dF: 5 Result: 1.4857 Critical value: 11.0705 Inside Similar: Yes	Resu	lt: 0.1818	dF: 10 Result: 0.6424 Critical value: 0.551 Outside Similar: Ye	
Species	Detected			Spores/m3	
		<100	1K	10K	>100K
	Cladosporium				110
	Total				110

<sup>\*</sup> The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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<sup>\*\*</sup> An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

<sup>\*\*\*</sup> The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

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#### MoldSTAT<sup>TM</sup>: Supplementary Statistical Spore Trap Report

\*\*\*\* MoldSCORE<sup>TM</sup> is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Hygiene Technologies International, Inc. C/O: Mr. Chun Lau

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Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

 $\textbf{MoldSCORE}^{\text{TM}}\textbf{:} \textbf{ Spore Trap Report}$ 

Outdoor Sample: 21311001-1-TM01 OUT

Fungi Identified	Oı	ıtd	00	r sa	mj	ole	sp	or	es	m.	3	Raw	Spores/
	<10	0		1K			10	K	>	>100	K	count	m3
Generally able to grow indoors*													
Alternaria												8	110
Bipolaris/Drechslera group												ND	< 13
Chaetomium					Ш							6	80
Cladosporium												63	3,400
Curvularia												ND	< 13
Nigrospora												2	27
Other brown												3	40
Penicillium/Aspergillus types†												56	1,500
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												2	110
Basidiospores												19	1,000
Rusts												3	40
Smuts, Periconia, Myxomycetes												37	490
Total													6,813

Fungi Identified	In	do	or	sam	ple	S]	pore	es/ı	n3	Rav	w	Spores/
	<100	)		1K			10K	;	>100	cou	nt	m3
Generally able to grow indoors*												
Alternaria										ND	)	< 13
Bipolaris/Drechslera group			Ш							ND	)	< 13
Chaetomium										ND	)	< 13
Cladosporium										ND	)	< 13
Curvularia										ND	)	< 13
Nigrospora										ND	)	< 13
Penicillium/Aspergillus types†										ND	)	< 13
Stachybotrys										ND	)	< 13
Torula										ND	)	< 13
Seldom found growing indoors**												
Ascospores										ND	)	< 13
Basidiospores										1		53
Rusts										1		13
Smuts, Periconia, Myxomycetes										ND	)	< 13
Total												67

100	MoldSC 200	ORE: 300	
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			105
			105
			100
Fina	al MoldSC	ORE	105

Client: Hygiene Technologies International, Inc. C/O: Mr. Chun Lau

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Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 21311001-1-TM03

Fungi Identified	Indo	or sai	nple	spore	s/m3	Raw	Spores/
	<100	1K		10K	>100	count	m3
Generally able to grow indoors*							
Alternaria						ND	< 13
Bipolaris/Drechslera group						ND	< 13
Chaetomium						ND	< 13
Cladosporium						1	53
Curvularia						ND	< 13
Nigrospora						ND	< 13
Penicillium/Aspergillus types†						ND	< 13
Stachybotrys						ND	< 13
Torula						ND	< 13
<b>Seldom found growing indoors**</b>							
Ascospores						ND	< 13
Basidiospores						1	53
Rusts						ND	< 13
Smuts, Periconia, Myxomycetes						1	13
Total				·			120

400	MoldSC												
100	200	300	Score										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			100										
			104										
			100										
			101										
Fina	Final MoldSCORE												

Fungi Identified	Inc	loo	rs	sam	ple	S	por	es/i	m3		Raw	Spores/
	<100			1K			10K		>100	K	count	m3
Generally able to grow indoors*												
Alternaria			Ш							Ш	ND	< 13
Bipolaris/Drechslera group			Ш								ND	< 13
Chaetomium			Ш							Ш	ND	< 13
Cladosporium											ND	< 13
Curvularia			Ш								ND	< 13
Nigrospora			Ш							Ш	ND	< 13
Penicillium/Aspergillus types†			Ш							Ш	ND	< 13
Stachybotrys			Ш								ND	< 13
Torula			Ш								ND	< 13
Seldom found growing indoors**												
Ascospores			Ш								1	53
Basidiospores											1	53
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											1	13
Total												120

100	MoldSCORE:										
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			120								
			104								
			100								
			101								
Final	Final MoldSCORE										

Client: Hygiene Technologies International, Inc. C/O: Mr. Chun Lau

C/O: Mr. Chun L Re: 21311001-1 Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

 $\mathbf{MoldSCORE}^{\mathsf{TM}}\mathbf{:}\ \mathbf{Spore}\ \mathbf{Trap}\ \mathbf{Report}$ 

**Location:** 21311001-1-TM05

Fungi Identified	Indo	oor	sam	ple s	spore	es/m	13	Raw	Spores/
	<100		1K		10K	>1001		count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								1	53
Basidiospores								2	110
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total									213

,											
100	MoldSCORE 200 300										
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			100								
			120								
			108								
			100								
			100								
Fina	Final MoldSCORE										

Fungi Identified	In	do	or	sa	mp	le	sp	ore	es/i	m3		Raw	Spores/
	<100	)		1K			1	0K	2	>100	K	count	m3
Generally able to grow indoors*													
Alternaria			Ш								Ш	ND	< 13
Bipolaris/Drechslera group												ND	< 13
Chaetomium			Ш								Ш	ND	< 13
Cladosporium												4	210
Curvularia												ND	< 13
Nigrospora			Ш								Ш	ND	< 13
Penicillium/Aspergillus types†												ND	< 13
Stachybotrys												ND	< 13
Torula												ND	< 13
Seldom found growing indoors**													
Ascospores												ND	< 13
Basidiospores												1	53
Rusts												ND	< 13
Smuts, Periconia, Myxomycetes										Ш		ND	< 13
Total													267

MoldS 100 200	CORE‡ 300 Score
	100
	100
	100
	105
	100
	100
	100
	100
	100
	100
	101
	100
	100
Final MoldS	CORE 105

Client: Hygiene Technologies International, Inc.

C/O: Mr. Chun Lau Re: 21311001-1

Date of Sampling: 11-07-2013 Date of Receipt: 11-07-2013 Date of Report: 11-08-2013

MoldSCORETM: Spore Trap Report

**Location:** 21311001-1-TM07

Fungi Identified	Iı	ndo	0	r	sam	ιpl	e	S	pore	es/	m	3	Raw	Spores/
	<10	0			1K				10K		>10	)0K	count	m3
Generally able to grow indoors*														
Alternaria													ND	< 13
Bipolaris/Drechslera group													ND	< 13
Chaetomium													ND	< 13
Cladosporium													2	110
Curvularia													ND	< 13
Nigrospora													ND	< 13
Penicillium/Aspergillus types†													ND	< 13
Stachybotrys													ND	< 13
Torula													ND	< 13
Seldom found growing indoors**														
Ascospores													ND	< 13
Basidiospores													ND	< 13
Rusts													ND	< 13
Smuts, Periconia, Myxomycetes													ND	< 13
Total														107

100	MoldSC0	ORE: 300	Score
			100
			100
			100
			104
			100
			100
			100
			100
			100
			100
			100
			100
			100
Fina	al MoldSCO	ORE	104

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

EMLab P&K, LLC EMLab ID: 1136889, Page 4 of 4

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

<sup>†</sup>The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

<sup>‡</sup>Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

Mr. Wes Frey Hygiene Technologies International, Inc.: Southern California 3625 Del Amo Blvd Suite 180 Torrance, CA 90503

Regarding:

Project: 21311001-2 EML ID: 1141145

Approved by:

Tachainel Managar

Technical Manager Roshanak Kalantari

Aut Kalt.

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #173068

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

Dates of Analysis:

Spore trap analysis: 11-20-2013

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Client: Hygiene Technologies International, Inc.: Date of Sampling: 11-15-2013 Southern California Date of Receipt: 11-19-2013 C/O: Mr. Wes Frey Date of Report: 11-20-2013

Re: 21311001-2

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21311	00-1-2 TM	108OUT	213	31100-1-2	ГМ09
Comments (see below)		A			None	
Lab ID-Version‡:		5156738-	1		5156739-1	
Analysis Date:		11/20/201	3		11/20/2013	3
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria	4	100	53			
Ascospores	1	100	13			
Basidiospores	3	25	160			
Chaetomium	1	100	13			
Cladosporium	11/18	25/100	830	1	25	53
Myrothecium						
Nigrospora	1	100	13			
Oidium						
Other colorless						
Penicillium/Aspergillus types†	2/9	25/100	230			
Pithomyces						
Rusts	1	100	13			
Smuts, Periconia, Myxomycetes	8	100	110	1	100	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+			2+		
Hyphal fragments/m3	93			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	< 1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			1,400			67

Comments: A) 18 of the raw count Cladosporium spores were present as a single clump. 9 of the raw count Penicillium/ Aspergillus type spores were present as a single clump.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

<sup>‡</sup> A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Hygiene Technologies International, Inc.: Date of Sampling: 11-15-2013 Southern California Date of Receipt: 11-19-2013 C/O: Mr. Wes Frey Date of Report: 11-20-2013

Re: 21311001-2

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	213	31100-1-2	ГМ10	213	31100-1-2	ГМ11					
Comments (see below)		None			None						
Lab ID-Version‡:		5156740-1	L		5156741-1	1					
Analysis Date:		11/20/2013	3	11/20/2013							
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3					
Alternaria											
Ascospores											
Basidiospores											
Chaetomium											
Cladosporium	1	25	53								
Fusarium											
Myrothecium											
Nigrospora											
Oidium				1	100	13					
Other colorless											
Penicillium/Aspergillus types†											
Pithomyces											
Rusts				1	100	13					
Smuts, Periconia, Myxomycetes											
Stachybotrys											
Stemphylium											
Torula											
Ulocladium											
Zygomycetes											
Background debris (1-4+)††	2+			2+							
Hyphal fragments/m3	13			< 13							
Pollen/m3	< 13			< 13							
Skin cells (1-4+)	1+			1+							
Sample volume (liters)	75			75							
§ TOTAL SPORES/m3			53			27					

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

EMLab P&K, LLC

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

<sup>‡</sup> A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Hygiene Technologies International, Inc.: Date of Sampling: 11-15-2013 Southern California Date of Receipt: 11-19-2013 C/O: Mr. Wes Frey Date of Report: 11-20-2013

Re: 21311001-2

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	213	31100-1-2	ГМ12	213	31100-1-2	ГМ13		
Comments (see below)		None			None			
Lab ID-Version‡:		5156742-1	L		5156743-1	1		
Analysis Date:		11/20/201	3		11/20/2013	3		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3		
Alternaria								
Ascospores								
Basidiospores								
Chaetomium								
Cladosporium	1	25	53	1	25	53		
Fusarium								
Myrothecium								
Nigrospora								
Oidium								
Other colorless								
Penicillium/Aspergillus types†	1	25	53					
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes				1	100	13		
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+			2+				
Hyphal fragments/m3	< 13			< 13				
Pollen/m3	< 13			< 13				
Skin cells (1-4+)	1+			1+				
Sample volume (liters)	75			75				
§ TOTAL SPORES/m3			110			67		

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

EMLab P&K, LLC

EMLab ID: 1141145, Page 4 of 5

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

<sup>‡</sup> A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

(866) 465-6653 Fax (858) 569-5806 www.emlab.com

Client: Hygiene Technologies International, Inc.: Date of Sampling: 11-15-2013 Southern California Date of Receipt: 11-19-2013 C/O: Mr. Wes Frey Date of Report: 11-20-2013

Re: 21311001-2

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		2131100-1-2 TM14	
Comments (see below)		None	
Lab ID-Version‡:		5156744-1	
Analysis Date:		11/20/2013	
	raw ct.	% read	spores/m3
Alternaria			-
Ascospores			
Basidiospores			
Chaetomium			
Cladosporium	2	25	110
Fusarium			
Myrothecium			
Nigrospora			
Oidium			
Other colorless			
Penicillium/Aspergillus types†			
Pithomyces			
Rusts			
Smuts, Periconia, Myxomycetes	1	100	13
Stachybotrys			
Stemphylium			
Torula			
Ulocladium			
Zygomycetes			
Background debris (1-4+)††	2+		
Hyphal fragments/m3	< 13		
Pollen/m3	< 13		
Skin cells (1-4+)	1+		
Sample volume (liters)	75		
§ TOTAL SPORES/m3			120

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

EMLab P&K, LLC

<sup>†</sup> The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

<sup>††</sup>Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

<sup>‡</sup> A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.:

Southern California C/O: Mr. Wes Frey Re: 21311001-2

Date of Sampling: 11-15-2013 Date of Receipt: 11-19-2013 Date of Report: 11-20-2013

#### $\textbf{MoldRANGE}^{\text{TM}}\textbf{:} \ \textbf{Extended Outdoor Comparison}$

Outdoor Location: 2131100-1-2 TM08OUT

Fungi Identified	Outdoor		Туріса	ıl Outd	loor Da	ata for	:	,	Typica	l Outd	loor Da	ata for	:
	data	Nove	ember i	in Calif	ornia†	(n‡=14	The er	ntire yea	ar in Ca	lifornia	(n‡=1	88141)	
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	53	13	13	27	67	120	58	13	13	27	67	110	54
Bipolaris/Drechslera group	-	8	13	13	27	53	15	7	13	13	27	40	12
Chaetomium	13	11	13	13	29	53	18	8	13	13	27	47	19
Cladosporium	830	190	370	1,100	3,200	5,900	98	110	210	630	1,700	2,800	97
Curvularia	-	7	13	13	27	53	8	7	13	13	27	53	6
Nigrospora	13	8	13	13	40	67	14	7	13	13	27	53	8
Penicillium/Aspergillus types	230	53	110	320	910	1,500	89	53	100	210	590	1,000	85
Stachybotrys	-	13	13	13	40	67	5	7	13	13	33	67	4
Torula	-	10	13	13	40	67	9	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	13	22	53	130	520	1,100	72	25	53	110	360	690	71
Basidiospores	160	53	110	430	2,600	6,200	96	53	80	270	1,000	2,400	93
Oidium	-	13	13	13	40	67	11	13	13	13	40	75	19
Rusts	13	13	13	13	53	93	28	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	110	13	13	40	110	190	71	13	13	40	110	200	68
§ TOTAL SPORES/m3	1,400												

<sup>†</sup>The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

 $\ddagger$ n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

EMLab P&K, LLC EMLab ID: 1141145, Page 1 of 1

<sup>§</sup> Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Client: Hygiene Technologies International, Inc.: Southern California

Southern California C/O: Mr. Wes Frey Re: 21311001-2

Date of Sampling: 11-15-2013 Date of Receipt: 11-19-2013 Date of Report: 11-20-2013

 $\textbf{MoldSCORE}^{\text{TM}}\textbf{:} \textbf{ Spore Trap Report}$ 

Outdoor Sample: 2131100-1-2 TM08OUT

Fungi Identified	Oı	ıtd	001	· saı	np	le	spoi	res	/m3	Raw	Spores/
_	<10	0		1K			10K	3	>1001	count	m3
Generally able to grow indoors*											
Alternaria										4	53
Bipolaris/Drechslera group										ND	< 13
Chaetomium										1	13
Cladosporium										29	830
Curvularia										ND	< 13
Nigrospora										1	13
Penicillium/Aspergillus types†										11	230
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										1	13
Basidiospores										3	160
Rusts										1	13
Smuts, Periconia, Myxomycetes										8	110
Total											1,427

Fungi Identified	Inc	doo	r	sam	ple	S	por	es/i	m3		Raw	Spores/
	<100			1K			10K		>100	K	count	m3
Generally able to grow indoors*												
Alternaria		Ш							Ш		ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium									Ш		ND	< 13
Cladosporium											1	53
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Rusts											ND	< 13
Smuts, Periconia, Myxomycetes											1	13
Total												67

100	MoldSC 200		Score
			100
			100
			100
			102
			100
			100
			100
			100
			100
			100
			100
			100
			102
Fina	al MoldSC	CORE	102

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Client: Hygiene Technologies International, Inc.:
Southern California
C/O: Mr. Wes Frey
Re: 21311001-2

Date of Sampling: 11-15-2013
Date of Receipt: 11-19-2013
Date of Report: 11-20-2013

MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 2131100-1-2 TM10

Fungi Identified	Indo	or	sam	ple s	spore	es/n	13	Raw	Spores/
_	<100		1K		10K	>	100F	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total									53

MoldSCORE:	Score 100 100
	100
	100
	102
	100
	100
	100
	100
	100
	100
	100
	100
	100
Final MoldSCORE	102

Fungi Identified	In	dod	r s	san	ıple	e s	poi	res	m	3	Raw	Spores/
	<100	)		1K			10K		>10	0K	count	m3
Generally able to grow indoors*												
Alternaria											ND	< 13
Bipolaris/Drechslera group											ND	< 13
Chaetomium											ND	< 13
Cladosporium											ND	< 13
Curvularia											ND	< 13
Nigrospora											ND	< 13
Penicillium/Aspergillus types†											ND	< 13
Stachybotrys											ND	< 13
Torula											ND	< 13
Seldom found growing indoors**												
Ascospores											ND	< 13
Basidiospores											ND	< 13
Oidium											1	13
Rusts											1	13
Smuts, Periconia, Myxomycetes											ND	< 13
Total												27

	MoldSCO	RE:	:
100	200	300	Score
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			105
			105
			100
Fina	al MoldSCO	RE	100

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Client: Hygiene Technologies International, Inc.:
Southern California
C/O: Mr. Wes Frey
Re: 21311001-2

Date of Sampling: 11-15-2013
Date of Receipt: 11-19-2013
Date of Report: 11-20-2013

MoldSCORE<sup>TM</sup>: Spore Trap Report

**Location:** 2131100-1-2 TM12

Fungi Identified	Indo	or	sam	ple	spor	es/n	n3	Raw	Spores/
	<100		1K		10K	>	1001	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								1	53
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								ND	< 13
Total			•						107

100 <b>MoldSCORE</b> : 200 300	Score
	100
	100
	100
	101
	100
	100
	107
	100
	100
	100
	100
	100
	100
Final MoldSCORE	107

Fungi Identified	Ind	oor	sam	ıple	spor	es/n	n3	Raw	Spores/
	<100		1K		10K	>	100K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								1	53
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								1	13
Total									67

100	MoldSC 200		Score
			100
			100
			100
			102
			100
			100
			100
			100
			100
			100
			100
			100
			102
Fina	al MoldSC	CORE	102

Client: Hygiene Technologies International, Inc.:

Southern California C/O: Mr. Wes Frey Re: 21311001-2 Date of Sampling: 11-15-2013 Date of Receipt: 11-19-2013 Date of Report: 11-20-2013

#### MoldSCORETM: Spore Trap Report

**Location:** 2131100-1-2 TM14

Fungi Identified	Indo	or	samp	le s	spore	s/n	13	Raw	Spores/
_	<100		1K		10K	>1	00K	count	m3
Generally able to grow indoors*									
Alternaria								ND	< 13
Bipolaris/Drechslera group								ND	< 13
Chaetomium								ND	< 13
Cladosporium								2	110
Curvularia								ND	< 13
Nigrospora								ND	< 13
Penicillium/Aspergillus types†								ND	< 13
Stachybotrys								ND	< 13
Torula								ND	< 13
Seldom found growing indoors**									
Ascospores								ND	< 13
Basidiospores								ND	< 13
Rusts								ND	< 13
Smuts, Periconia, Myxomycetes								1	13
Total									120

MoldSCORE:			
			100
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Fina	al MoldSC	ORE	104

<sup>\*</sup> The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

EMLab P&K, LLC EMLab ID: 1141145, Page 4 of 4

<sup>\*\*</sup> These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

<sup>†</sup>The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

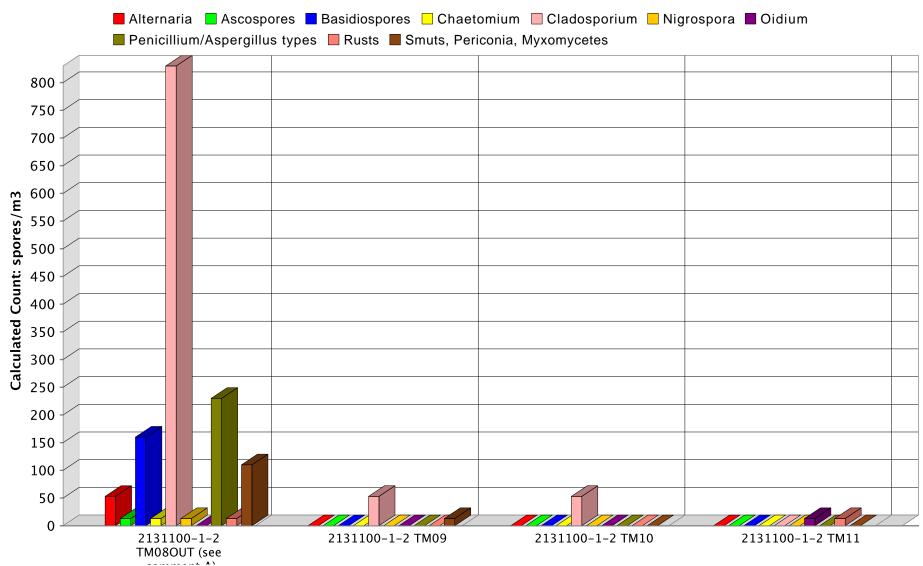
<sup>‡</sup>Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

11-20-2013: 21311001-2

EMLab P&K

1010 N Central Avenue, Glendale, CA 91202

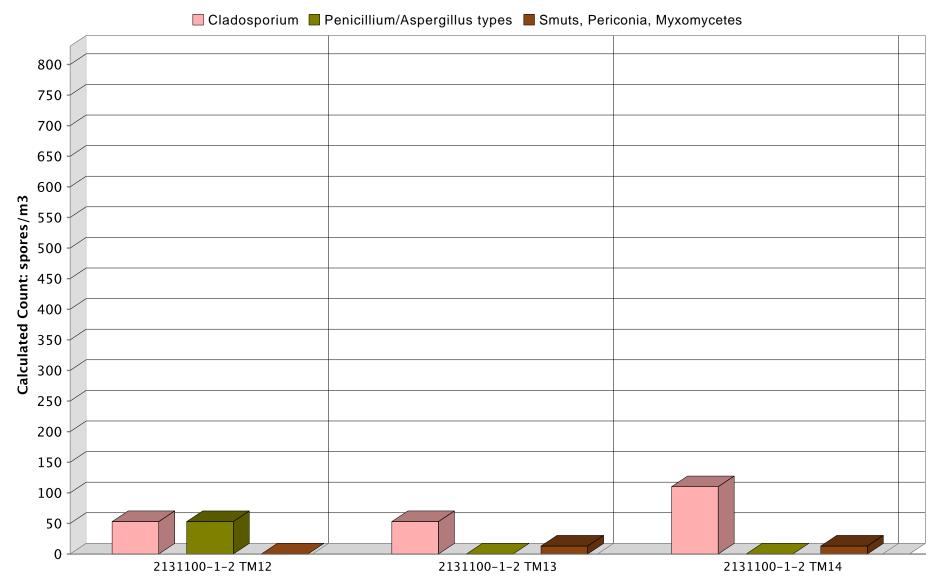
#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



**Comments:** A) 18 of the raw count *Cladosporium* spores were present as a single clump. 9 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

Note: Graphical output may understate the importance of certain "marker" genera. EMLab P&K, LLC

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. EMLab P&K, LLC



Hygiene Technologies international, inc.

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(310) 370-2474 FAX www.hyglenetech.com

## Request For Analysis

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Project Contact: Chun Can Turnaround Required: Stoundard				
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ard, Sulte 180 a 90503-1643 310) 370-8370 taro/ 370-2474 FAX

Request For Analysis www.hygienetech.com

Project Number/Purchase Order: 1311001-2.			Date Submitted //. 18-13	
	•			
Project Contact: Lab Destination:	Emils'		Lab Contact:	
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED	
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Lab Use Only:				
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Hygiene Technologies international, Inc.

3625 Del Ai <sup>O</sup> Torrance

(310) 370-8370 (310) 370-2474 FAX www.hyglenetech.com

### Request For Analysis

Project Number/Purchase Order: 21211001			Date Submitted: 11/22/13	
Project Contact:	,		Turnaround Required: Standowck	
Lab Destination:	Enlerb		Lab Contact:	
SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED	
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